

In the Specification:

Please amend the specification as follows:

Page 1, after the Title, please insert the following heading and paragraph:

STATEMENT OF GOVERNMENT INTEREST

This invention was made with Government support under Contract Number F49620-00-1-0372 awarded by Air Force Office of Scientific Research (AFOSR). The Government has certain rights in this invention.

Please amend the paragraph beginning on page 3, line 24, with the following rewritten paragraph:

FIG. 9 is a drawing depicting an SEM photograph of an array in an embodiment of the microdischarge device of the present invention;

Please amend the paragraph beginning on page 22, line 23, with the following rewritten paragraph:

Arrays of up to 10×10 devices have been fabricated and V-I data for arrays ranging from 2×2 to 6×6 are presented in Fig. 8. All of the arrays contain devices similar to those of Fig. 7b, having $50 \mu\text{m}$ square pyramidal silicon cathodes separated by $50 \mu\text{m}$. The cavities were filled with Ne at 700 Torr and have a ballast resistance of $56 \text{ k}\Omega$. Stable glow discharges were obtained for Ne pressures beyond 1 atm, in contrast with arrays of $400 \mu\text{m}$ diameter conventional planar silicon cathode devices that were unstable for gas pressures of even a few hundred Torr. Operating voltages as low as 200 V were observed for a 5×5 array (210 V for a 6×6 array). The Ne emission spectra produced by these arrays show strong emission from the singly-charged Ne ion in the 300 – 370 nm region even for

pressures of several hundred Torr. Ignition of a common anode 3×3 array filled with Ne at 700 Torr occurred at 218 V and $0.35 \mu\text{A}$. Optical micrographs of this array as well as larger arrays show that the emission from each discharge is spatially uniform. ~~An~~ A drawing depicting an SEM image of a 510×510 array is shown in Fig. 9.

Page 25, delete lines 18-20 in their entirety.